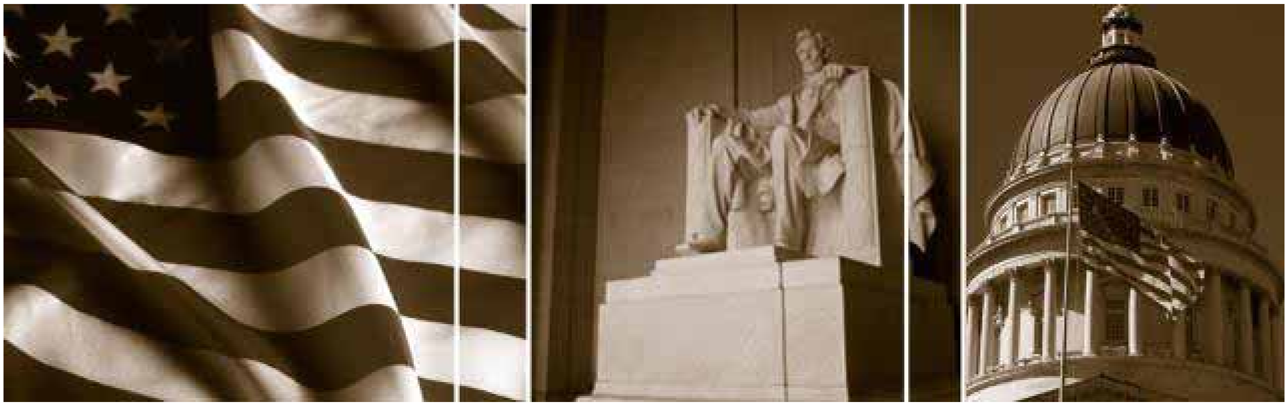

Report to

WA State Office of Financial Management

Grants, Contracts and Loans Feasibility Study

Definition of Requirements

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1. INTRODUCTION

1.1. Purpose

This document lays the foundation for the Grants, Contracts and Loans System (GCL) Feasibility Study by stating the requirements a new GCL system must meet.

1.2. Background

The Washington State Department of Ecology must replace its aged Contracts & Grants Management System that processed transactions totaling $392 million in the 2003-2005 biennium. OFM has proposed that Ecology's replacement be directed into an enterprise system for Washington State to be used by multiple agencies for grants, contracts, and loans management. Benefits are avoidance of duplicative systems costs among agencies, cross-agency monitoring of projects, and improvement of core business practices. OFM is leading the effort, joined by the Departments of Ecology (ECY) and Community, Trade and Economic Development (CTED) as the first customers of the new system. An enterprise system is also mission-critical to CTED; it distributes over $1.2 billion in new and existing contracts and loans through manual procedures and spreadsheets and seeks improved business practices and information systems.

Monies spent toward such systems provide a unique opportunity to address not only ECY's and CTED's needs but also achieve:

- Avoidance of duplicative system costs among agencies.
- Improved monitoring of projects. Agencies with programs for environmental quality could share project information, as recommended in the 2001 report by the Joint Legislative Audit and Review Committee, "Investing in the Environment: Environmental Quality Grant & Loan Programs Performance Audit."
- Improved management of many types of contracts and of loans.
- Automated fiscal processes to achieve efficiencies in the payment, receipt and accounting for funds.
- Electronic access to those applying for grants, requesting payments, or seeking information.

The Proposed System will be a *Roadmap* Business Initiative. The *Roadmap* is a multi-year effort to improve and integrate the state's financial and administrative processes and information systems (More information is available at http://www.OFM.WA.GOV/Roadmap). As a *Roadmap* business initiative, this Enterprise Grants, Contracts & Loans Management System will be an early adopter of three key *Roadmap* approaches:

- **Business process modeling**. Business process modeling is being conducted to document the "as-is" business processes and the "could-be" future model. The "could-be" model will serve as a starting point for the feasibility study and will represent a common understanding of the best practices to be implemented by the State. The "could-be" model will also identify key policy changes that may be necessary, key common information requirements, and establish the value proposition that can be achieved. The "could-be" models related to grants, contracts and loans management are recently available.
- **Integration architecture**. A common integration architecture for the State's financial and administrative systems is being developed under the authority of the state's Enterprise Architecture committee. This architecture will consist of principles, policies, reference models and standards. The integration architecture will be designed to address the following questions:
  - What is the technical architecture that will allow core financial and administrative systems and business processes to be implemented incrementally with confidence that all of the pieces will fit together as they come on-line?
  - What are the clear and consistent guidelines for central systems providers and line agencies that allow core financial and administrative systems to fit within the State's current environment of common and agency "shadow systems"?
  - How can financial and administrative systems be constructed to allow business process solutions to be composed of agency unique and central, common components?

This architecture will be under development at the time of the feasibility study. The feasibility study will take into account the integration architecture direction and requirements as known at that time.

Performance measurement. *Roadmap* business initiatives provide the opportunity to apply Government Management Accountability and Performance principles to the state's "back office" business processes. The performance indicators for grants, contracts and loans management will be available in early January 2006 as part of the business process modeling described above.

This feasibility study will allow OFM, ECY and CTED to plan for an enterprise solution for grants, contracts and loans management (within the scope of this project) by documenting:

- The requirements for an enterprise grants, contracts and loans solution
- The business case for proceeding with such a solution
- The alternatives – and costs and benefits – for a solution and a recommended solution

And by documenting, for the recommended solution:

- A conceptual design
- A work plan

- A risk management plan

1.3. Approach

The working project team worked on two efforts concurrently:

- Reviewing current requirements-related materials from CTED and ECY and the Roadmap initiative.
- Interviewing stakeholders whose requirements have not yet been elicited. Stakeholders included state and federal staff with enterprise interest in grants, contracts and loans information, as well as staff who enter data into a grants, contracts and loans system. A list of people interviewed is in Appendix B.

We organized the functional requirement information gathered into use cases and documented them in a use cases using a template submitted with the Requirements Deliverable Expectation Document (DED). As expected, the items and level of detail completed on template was slightly updated for this project. After drafting the use cases, it was evident the "Triggers/Frequency" row was of limited value, and was removed; all other rows, including processes, were completed. The use cases are included in Appendix C.

The requirements, listed in the context of use cases, were reviewed and discussed by a combined group of stakeholders from nine different state agencies, and resulting changes made.

Technical and other non-functional requirements have been documented in the same manner: review of materials and interviews with OFM and DIS architects.

1.4. Sources

Sources for information in this document include:

CMS Software Requirements Specifications, CTED, June 2005: contracted study with seven appendices, summarizing findings on the requirements for a contract management system for CTED.
CMS Housing Trust Fund Storyboard, CTED, November 2005: contracted study with requirements for the Housing Division, including sample screen designs.
Contracts, Grants and Loans Project Preliminary Requirements Analysis, ECY June, 2005: contracted study with future process flows and high level requirements.
Contracts, Grants and Loans Project Current Business Process Flow Diagrams, May, 2005: Diagrams of eleven program process flows.
Roadmap publications on the website at: http://www.ofm.wa.gov/roadmap/default.htm. Documents include Grant Management Value Proposition, version 0.6, February, 2006: a description of the "to be" processes for grants and loans and the potential value in harmonizing common business processes.

Washington State Enterprise Architecture Program Integration Architecture Initiative Charter, EA Committee Document version 1.3, December, 2005: Description of issues to be addressed by the statewide enterprise architecture initiative, a list of the Documenter Team, and initiative timeline.
Contracts/Grants Payable System Data Dictionary, ECY, January, 2006: 25-page listing of data items in current CGP system at ECY, organized by table.
Strategic Plan 2007 - 11, Office of the Interagency Committee for Outdoor Recreation (IAC), January, 2006: description of programs and outcomes the PRISM system supports.
PRISM System Data Dictionary, IAC, January, 2006: 12-page listing of data items in current PRISM system at IAC, organized by project items.
Contracts Database User Guide Draft 2.3, L&I, January, 2006: draft of user manual for Contracts Database system used by L&I Contract Office staff.
Software Accessibility Requirements, June 2005: 5-page document developed by OFM Information Services staff.
15 Interviews with 32 people from ECY, CTED, OFM and funding agencies.
Follow-up emails from interviewees.
Roadmap combined Grants/Loans and Contract Focus Groups' review of use cases and requirements, February 3, 2006.

1.5. Relationship to Other Deliverables

This is the first in a series of documents that will together comprise a Feasibility Study for an enterprise Sub-Grants, Contracts and Loans System. The requirements in this document will be used to identify and evaluate alternative solutions, high level costs and benefits of the alternatives, and the costs, benefits and implementation needs of the recommended solution.

2. OBJECTIVES, CONSTRAINTS AND SCOPE

2.1. Objectives

The objectives of the Grants, Contracts and Loans Feasibility Study project are to :

- Understand the core functional requirements for the first release of a grants, contracts and loans system – by June 2007, to:
  - Allow ECY to retire its current application for grants, contracts and loans by June 2007
  - Allow CTED and ECY to plan for other applications to meet requirements outside the core
  - Focus on ECY and CTED for this study and assume these will represent most of the core functional requirements
  - Involve other agencies enough to identify core requirements in addition to those identified by ECY and CTED.
- Understand the core enterprise requirements for a grants, contracts and loans system, with a clear line between these requirements and those that are agency-specific.
  - Consider the Roadmap modeling to represent broader financial requirements
- Understand the agency-specific requirements and how they can be accommodated in an enterprise system.
- Involve other agencies as feasible to review core requirements, e.g., review with the Roadmap focus group attendees for grants and contracts.
- Recommend the best grants, contracts and loans system solution to meet core requirements and accommodate agency-specific requirements.
- Plan for implementation of the recommended solution that allows:
  - Implementing in increments over time.
  - Expansion of functionality, including other types of contracts, in time.
- Prepare OFM and other agencies to answer questions about a grants, contracts and loans system in supplemental budget requests by February 17th.
- Prepare OFM and other agencies to request funding needed and answer questions about a future release of a grants, contracts and loans system in next biennium's budget.

This document addresses the first four items above, as well as laying the groundwork for the other items.

2.2. Constraints

The solution will by constrained by:

1. *Resources to implement.* Funding and staff positions for implementing the system are limited. The first release must be feasible within a $3.1 million budget.
2. *Implementation requirements:*
   a) The solution must be able to be implemented incrementally.
   b) This is the first time a team has been formed to implement a Roadmap system. The plan must include time to build team processes and strong team leadership.
3. *Ongoing costs.* Agencies will use the system if the cost is reasonable. Costs and projected costs for using existing grants, contracts and loans systems are constraining their use now.
4. *Roadmap Enterprise Processes.* The Roadmap project has identified common processes for handling sub-grants and loans and contracts. The system must:
   a) Support those processes and
   b) Allow “unplugging” components that provide services that will be provided by an enterprise financial system.
5. *Enterprise Solutions Architecture.* The Department of Information Services has been developing an architecture that will facilitate enterprise solutions across the state. The selected solution must enable the statewide enterprise architecture direction.
6. *OFM technical direction.* OFM has set its architecture standards and direction. The solution must accommodate and further them.
7. *The sub-grant, contract and loan system requirements of Washington State.* The system must meet core and accommodate agency-specific requirements.

2.3. Scope

The functional scope of the solution is evident in the use cases and requirements in this document. Those use cases and requirements with essential priorities can be considered in scope for an initial implementation.

Requirements with non-essential priorities can be considered to be in scope for later implementations or to the extent that their functionality can be found in the solution alternatives meeting the essential requirements.

2.4. Feasibility Study Scope

In accord with the scope in the feasibility study work request, the requirements address:

- For Grants Management, functions of applying for grants, evaluating and awarding grants, daily grants/project management, payments, closures, and reporting/queries.
- For Contracts Management, the functions of documenting and establishing contracts, daily contracts management, payments, closures, and reporting/queries.
- For Loans Management, the functions of accounts payable for loans. It is expected that other systems will address the other functions of loans management.

Also:

- The application for a grant by a recipient is in scope.
- The only Accounts Payable functionality in scope is whatever is needed to accommodate grants, contracts or loans as one process. The piece implemented for this system may be replaced when enterprise financial solutions are implemented. A/P is the first thing the Roadmap will address next biennium.

Only sub-grants are in scope (page 2 of the Roadmap grant “to be” process model).

2.5. Out of Scope

The requirements for a grants, contracts and loans solution will *not* include:

- Accounts Receivable functionality – no in-bound money.
- Procurement, as defined by the Roadmap project.
- Accounts Payable beyond that needed for grants, contracts and loans.
- The grant process: money coming in to the state.
- Applications to send data to or to transform data for the system.
- Applications to transform data exported from the system.

3. ASSUMPTIONS

All assumptions in the Project Plan document apply to this document.

- The solution application will:
  - Be an internet-based system using electronic documents and workflow management
  - Support on-line creation and routing of applications, agreements, progress reports, deliverables and requests for payment
  - Use an on-line library of forms, templates, clauses, boilerplate
  - Enable the implementation of business rules, alerts and triggers
  - Facilitate on-line access to agreement information by constituents and the public
  - Provide the status and workflow history of any document
  - Provide easy to use standard reports
  - Allow integration with Crystal Enterprise for ad hoc query/reporting
- The current functionality of the ECY CGP application must be maintained in the new system.
- Requirements that are focused on sub-grants may apply to contracts and loans also, as agencies' processes allow.
- Business rules will be configurable in a new system. This includes user access; field edits and selection lists; and contextual edits.
- Field labels, business rules and data names will be configured centrally and not tailored for individual agencies.
- AFRS will validate the information sent from the new system.
- AFRS or other system sending information to the new system will send data that has been edited and conforms to the system data standards and definitions.
- Because widely varying sizes of agencies make their staffing and processes different, it would be impractical to administer workflows for agencies centrally.

4. SYSTEM ACTORS

The people and systems that will interact with a system are called "actors". A new enterprise sub-grants, contracts and loans system will have these types of actors:

#	System Inter-actor (Actor)	Definition	Use Cases
1	Agreement Funder	Staff person from the agency or organization that is funding the sub-grant or loan	1, 2, 3, 15, 16, 27, 28, 33, 34
2	Applicant	Individual or organization that is applying for the sub-grant, loan	5, 6, 27, 28
3	Respondent	Individual or organization that is responding to the request for contracted services	5, 27, 28
4	Evaluation Coordinator	State agency staff responsible for coordinating the evaluation of applications or responses	4, 6, 16, 27, 28
5	Application Evaluator	Person responsible for evaluating all or part of an application or response; may be state agency staff or local government or other organizational staff	6, 16, 27, 28
6	Sub-Grant Recipient: Submitter	Individual or organization who has successfully applied for and has been awarded a sub-grant	14, 16, 17, 21, 27, 28
7	Contractor	Individual or organization who has successfully applied for and has been awarded a contract	14, 16, 17, 21, 27, 28
8	Loan Recipient	Individual or organization who has successfully applied for and has been awarded a loan	14, 16, 17, 21, 27, 28
9	Program Sub-Grant Manager	State agency staff person responsible for managing the business program that is funding a sub-grant or loan	1, 2, 3, 4, 6, 8, 9, 10, 11, 12, 13, 14, 15, 16, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 33, 34
10	Program Sub-Grant	State agency staff person assisting the	1, 2, 3, 4, 6, 8, 9, 10, 11, 12, 13, 14, 15, 16,

#	System Inter-actor (Actor)	Definition	Use Cases
	Assistant	Program Sub-Grant Manager	18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 33, 34
11	Program Officer	State agency business program staff person with a stake in the progress of a sub-grant or loan	6, 8, 9, 10, 13, 15, 16, 20, 23, 27, 28, 33
12	Inspector	State agency or organization staff person responsible for inspecting the work done under a sub-grant, loan or contract	13, 16, 20, 23, 27, 28, 33, 34
13	Auditor	State audit agency staff person responsible for inspecting the work done under a sub-grant, loan or contract	13, 16, 20, 23, 27, 28, 33, 34
14	Contract Manager	State agency staff person responsible for managing a contract	8, 9, 10, 11, 12, 13, 14, 15, 16, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 33, 34
15	Contract Assistant	State agency staff person assisting the Contract Manager	8, 9, 10, 11, 12, 13, 14, 15, 16, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 33, 34
16	Contract Officer	State agency staff person developing and tracking contracts for the agency	8, 9, 10, 11, 12, 13, 14, 15, 16, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 33, 34
17	Fiscal Manager	State agency staff person responsible for accounting for the money sent to sub-grant and loan recipients and contractors; includes reporting to AFRS	10, 13, 15, 16, 18, 19, 20, 21, 22, 23, 24, 27, 28, 33, 34
18	Fiscal Assistant	State agency staff person assisting the Fiscal Manager	10, 13, 15, 16, 18, 19, 20, 21, 22, 23, 24, 27, 28, 33, 34
19	Fiscal Officer	State agency fiscal staff person with a stake in the accounting for a sub-grant, loan or contract	15, 16, 20, 27, 28, 33,34
20	Agency Performance	State agency staff person responsible for	13, 15, 16, 20, 21, 27,

#	System Inter-actor (Actor)	Definition	Use Cases
	Manager	reporting performance against agency goals	28, 33, 34
21	Enterprise Performance Manager	State enterprise staff person responsible for reporting progress against enterprise goals	13, 15, 16, 20, 21, 27, 28, 33, 34
22	AFRS	The state Accounting and Financial Records system, now providing state-wide accounting and financial tracking	22
23	Funding Source System	An application that a funding source organization uses to administer the grants to a state agency, which the agency in turn makes available as sub-grants or loans	23
24	Agency Financial System	Application running in a state agency that tracks sub-grant or loan money sent to Recipients; may send information to AFRS	23
25	Agency GCL System	Application running in a state agency that aids the process of setting up or tracking a sub-grant, contract or loan; includes requirements of specific sub-grants, contracts or loans	23
26	Agency Program System	Application running in a state agency that aids the process of managing a business program which includes sub-grants, contracts or loans	23
27	Agency System Administrator	State agency staff person responsible for making sure the new application is available to all appropriate agency staff with appropriate permissions and agency-specific data tables are updated	27, 28, 29, 30, 32
28	Enterprise System Administrator	State enterprise staff person responsible for making sure the new application is available to all state agencies with appropriate permissions, enterprise-level data tables updated, application and database maintained and backed up	27, 28, 29, 30, 31, 32
29	Agreement Signer/Approver	State agency staff person who signs an agreement	7, 8, 12, 21, 33, 34

#	System Inter-actor (Actor)	Definition	Use Cases
30	Recipient: Signer	Recipient or representative of the recipient organization who signs an agreement	7, 8, 12, 21
31	Budget Officer	State agency staff person who assigns budget codes to an agreement budget	10
32	Project Manager	State agency staff person managing a grant or loan project; may have different privileges from the Program Sub-Grant Manager	1, 2, 3, 4, 6, 8, 9, 10, 11, 12, 13, 14, 15, 16, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 33, 34

5. Prioritized Functional Requirements

5.1. Requirements in the Context of Use Cases

Since requirements can only be validated by the people who will use the system, it is useful to develop them in the context of how people will use the system: the cases in which they will use it, or "use cases."

The following requirements were developed in the context of 35 use cases, which are presented in Appendix C. The use cases are listed in numeric sequence, but the requirements are listed in *functional* sequence. The requirement numbers are given to identify the use case where they were developed.

5.2. Enterprise and Agency-Specific Requirements

Because the solution system will serve the Washington State enterprise, it is meant to serve the core needs of all state agencies. At the same time, there are needs in the individual agencies that also must be met. Core requirements apply to the entire enterprise, and represent most of the requirements listed here. Agency-specific needs arise mostly in that the sub-grants agencies handle are specific to the (usually federal) entities funding them. Sub-grants and loans especially have a very wide variety of data involved, ranging from wastewater pollutant content to the average income of residents of a building that was built.

While data are very different, however, processes are not. To avoid the need for many specific data tables, these requirements raise the level of detail to the processes and propose "utility" programs for business rules, schedule alerts, workflow, and document generation. In this way, the common processes may be served and the specific data as well, as much as data can fit into the "utility" program.

The requirements listed below include both those identified as core requirements, with an "R" number (for "requirement"), and agency-specific requirements, identified with an "AR" number (for "agency requirement"). Agency-specific requirements are generally special formats or individual system interfaces.

5.3. Priorities and Evaluation

The requirements below include priorities that have been discussed but should not be considered final for implementation planning. Because of the volume of requirements and the short timeframe of this study, stakeholders will need more time to finalize the priorities.

5.4. Use Case List

Use Case	Description
1. Advertise Sub-Grant	When grant money becomes available for sub-grants, state program staff must advertise its availability to potential applicants and maintain notification information. This may be on the Internet, email notifications, mailings or public presentations, or a combination of these.
2. Publish Sub-Grant Application	Each sub-grant may have a unique application or may share an application with another sub-grant or group of sub-grants. The application must be available with the sub-grant advertisement.
3. Publish Sub-Grant Evaluation Criteria	Each sub-grant may have unique evaluation criteria or may share an evaluation criteria with another sub-grant or group of sub-grants. The criteria must be available with the sub-grant application.
4. Set up Evaluation Workflow	Evaluation of sub-grant applications may involve many different people and processes inside or outside of state agencies and any one may be unique or like others.
5. Apply for a Sub-Grant	An individual or representative of an organization fills out an application for a sub-grant and submits it as instructed. Application may be on-line or on paper.
6. Evaluate Application	Appropriate state agency program staff will receive, process/decide and pass on all applications, according to the evaluation workflow for the particular sub-grant. Includes preliminary review for completeness and draft award list.
7. Award Decision	Appropriate state agency program staff will select and award the sub-grant to a recipient based on evaluations and draft award list.
8. Set Up/Change Agreement Info, Terms and Conditions	Once the recipient has been decided, state agency program staff will set up the agreement in the new system by entering facts about the agreement.
9. Set Up/Change Agreement Schedule	Most agreements will involve a schedule that must be followed for compliance. State agency program staff will set and maintain the schedule for each agreement, which may be unique or like others. Includes advance notification of schedule due dates.

Use Case	Description
10. Set Up/Change Agreement Budget	All agreements will involve a budget that agrees with the budget of the funder. State agency program staff will set and maintain the budget for each sub-grant, which may be unique or like others.
11. Set Up/Change Agreement Workflow	Maintaining agreements will involve workflows, such as routing for approval and signatures, to assure compliance with terms of the agreement and sound fiscal policy. State agency program staff will set and maintain the workflow for each agreement, which may be unique or like others.
12. Amend an Agreement	Formally amend an agreement when certain terms or conditions change.
13. Monitor Agreement	Track an agreement through its life to ensure all terms and conditions are being followed.
14. Report Progress	The Recipient will report progress at pre-defined intervals and in pre-defined formats.
15. Report to Funding Source	State agency program staff report to the funding organization at pre-defined intervals and in pre-defined formats.
16. Request Information on Agreement(s)	Many people, state staff and individuals and organizations, need information on agreements, both individual and summary /statistical, reports and queries, selected by a highly variable set of criteria, including geographical and geopolitical area.
17. Request a Payment	The Recipient will request payment when certain terms of the agreement have been met.
18. Process a Payment Request	State agency staff evaluate the Recipient's request for payment and send approved requests to fiscal staff for payment.
19. Process a Financial Adjustment	State program staff or fiscal staff who find discrepancies will adjust the financial records of an agreement. Includes all encumbrances, encumbrance liquidations, estimates of biennial carryover, warrant cancellations and reissues, refunds and reconciliations with AFRS general ledger.
20. Evaluate/Inspect/Audit a Sub-Grant	Staff from within or outside the agency administering the business program may inspect and evaluate the work of a recipient or audit the records of an agreement.

Use Case	Description
21. Close Out Agreement	At the end of an agreement, final terms must be met and its records closed.
22. Send Information To/From AFRS	Allotments and Accounts Payable (A/P) information must be sent to AFRS and AFRS will send acknowledging information to the new system.
23. Make Information Available to Other Systems	Make information available to other applications in a standard format.
24. Deleted	
25. Deleted	
26. Deleted	
27. Get Help on System Use	Request and receive on-screen instructions on how to use the new system.
28. Sign On to System	Access the system with an appropriate role.
29. Control Access to System	Set up and maintain a list of people authorized to access the new system, and the roles they are authorized to assume.
30. Update System Tables	Set up and maintain both enterprise-wide and agency-specific data tables. Includes financial transaction types and AFRS transaction codes.
31. Add Agency	Set up and maintain a state agency's use of the new system.
32. Maintain Recipient/Vendor Information	Maintain the list and accompanying information on recipients of sub-grants and loans and vendors.
33. Track Agreement Deliverables	Track the deliverables for an agreement to assure compliance.
34. Track Agreement Outcomes	Track the outcomes for an agreement as they relate to agency and funder goals.
35. Register to Apply for a Sub-Grant	An individual or representative of an organization fills out or changes a registration form before applying for a sub-grant and submits it as instructed. One registration may be used for all subsequent applications for the individual/representative.

5.5. Individual Use Case Descriptions, including Common/Specific and Priorities

5.5.1. Use Case 1 – Advertise Sub-Grant

R1.1 The system must allow user to enter an opportunity identifier at least 15 characters long (including agency identifier)
Priority: Essential

R1.2 The system must be able to generate an opportunity identifier in a pre-defined format at least 15 characters long (including agency identifier)
Priority: Essential

R1.3 The system must support the following identifiers for opportunities in both code and description: state program identifier (at least 10 characters); state program type; funding program (at least 10 characters); funding program type; opportunity number (at least 15 characters); opportunity type
Priority: Essential

R1.4 The system must allow user to record an unlimited number of other opportunity identifiers
Priority: Essential

R1.5 The system must allow user to enter, change and select advertisement format by state or funding program type, state or funding program and opportunity type
Priority: High

R1.6 The system must allow user to enter, change and select boilerplate advertisement text by state or funding program type, state or funding program and opportunity type
Priority: High

R1.7 The system must allow user to enter and store opportunity advertisement data items in a database that will allow the data items to be retrieved for later agreement transactions
Priority: Essential

R1.8 The system must allow user to advertise an opportunity in multiple ways including publishing on a web page and email list notification
Priority: High

R1.9 The system must allow user to enter or copy text into an opportunity advertisement
Priority: High

R1.10 The system must store and allow user to retrieve different versions of an opportunity advertisement
Priority: High

R1.11 The system must allow user to maintain a list of interested and qualified potential recipients by state or funding program type, state or funding program, opportunity type, opportunity, organization and role within organization
Priority: High

R1.12 The system must record the user-id, opportunity identifier and date/time of advertisement event in a change log
Priority: Essential

R1.13 The system must allow user to display advertisement events by opportunity identifier, date range or user-id
Priority: Essential

AR1.1 The system must allow user to enter the program types and programs of opportunities the agency handles
Priority: High

AR1.2 The system must allow user to enter boilerplate advertisement text for the opportunity types valid for the agency
Priority: High

5.5.2. Use Case 2 – Publish Sub-Grant Application

R2.1 The system must allow user to store, update and select sub-grant application formats by state or funding program type, state or funding program, opportunity type and opportunity
Priority: Essential

R2.2 The system must allow user to enter, change and select boilerplate application text by state or funding program type, state or funding program, opportunity type and opportunity
Priority: Essential

R2.3 The system must allow user to enter and store sub-grant application data items in a database that will allow the data items to be retrieved for later sub-grant transactions
Priority: Essential

R2.4 The system must allow user to publish a sub-grant application in multiple ways including publishing on a web page and email list notification
Priority: Essential

R2.5 The system must allow user to enter or copy text into a sub-grant application
Priority: Essential

R2.6 The system must allow user to specify business rules edits in a sub-grant application
Priority: Essential

R2.7 The system must store and allow user to retrieve different versions of a sub-grant application
Priority: High

R2.8 The system must allow user to set up more than one sequential application for an opportunity
Priority: High

R2.9 The system must record the user-id, opportunity identifier and date/time of application event in a change log
Priority: Essential

R2.10 The system must allow user to display application events by opportunity identifier, date range or user-id
Priority: Essential

AR2.1 The system must allow user to enter application formats for the opportunity types valid for the agency
Priority: High

AR2.2 The system must allow user to enter boilerplate application text for the opportunity types valid for the agency
Priority: High

5.5.3. Use Case 3 – Publish Sub-Grant Evaluation Criteria

R3.1 The system must allow user to store and select sub-grant application evaluation criteria formats by state or funding program type, state or funding program, opportunity type and opportunity
Priority: High

R3.2 The system must allow user to enter, change and select boilerplate application evaluation text by state or funding program type, state or funding program, opportunity type and opportunity
Priority: High

R3.3 The system must allow user to enter and store sub-grant application evaluation data items in a database that will allow the data items to be retrieved for later sub-grant transactions
Priority: High

R3.4 The system must allow user to publish sub-grant application evaluation criteria in multiple ways including publishing on a web page and email list notification
Priority: High

R3.5 The system must allow user to enter or copy text into sub-grant application evaluation criteria
Priority: High

R3.6 The system must allow entry of at least these evaluation criteria items: criteria number; description; possible points; weight; priority
Priority: High

R3.7 The system must record the user-id, opportunity identifier and date/time of application evaluation criteria event in a log
Priority: Essential

R3.8 The system must allow user to display evaluation criteria events by opportunity identifier, date range or user-id
Priority: Essential

AR3.1 The system must allow user to enter application evaluation criteria formats for the opportunity types valid for the agency
Priority: High

AR3.2 The system must allow user to enter boilerplate application evaluation criteria text for the opportunity types valid for the agency
Priority: High

5.5.4. Use Case 4 – Set up Evaluation Workflow

R4.1 The system must allow user to specify and maintain the correct workflow to evaluate a sub-grant application
Priority: Essential

R4.2 The system must allow user to set persons other than state agency staff as participants in evaluation workflows
Priority: Essential

R4.3 The system must include a customizable calendar schedule in a evaluation criteria workflow
Priority: Essential

R4.4 The system must include at least these events in a customizable evaluation criteria workflow: alert, confirmation, delegation, application approval, application rejection, application award, audit, purge/close evaluation
Priority: Essential

R4.5 The system must include at least these attributes for a customizable evaluation criteria workflow event: type, trigger, frequency/schedule, sequence, content, recipients, approver, follow-up requirements, restrictions and suppression criteria
Priority: Essential

R4.6 The system must include at least these attributes for a customizable evaluation criteria workflow participant: contact information, group and subgroup affiliation, group and subgroup relationships, delegation default
Priority: Essential

R4.7 The system must allow user to specify business rules for an evaluation criteria workflow
Priority: Essential

R4.8 The system must allow a workflow participant to display his/her outstanding work
Priority: Essential

R4.9 The system must allow user to copy one sub-grant application evaluation workflow to another
Priority: Essential

R4.10 The system must allow user to set up evaluation workflows by state or funding program type, state or funding program, opportunity type and opportunity
Priority: Essential

R4.11 The system must allow anonymous participants and restriction of reports to show or not show anonymous participants' name
Priority: Essential

R4.12 The system must record the user-id, opportunity identifier and date/time of application evaluation criteria workflow event in a log
Priority: Essential

R4.13 The system must allow user to display evaluation criteria workflow events by opportunity identifier, date range or user-id
Priority: Essential

R4.14 The system must allow interface with an enterprise HR system for workflow participants
Priority: Medium

5.5.5. Use Case 5 – Apply for a Sub-Grant

R5.1 The system must allow public individuals and organizations' staff to complete and submit an on-line application for a sub-grant
Priority: Essential

R5.2 The system must allow entry of an incomplete sub-grant application, save it and allow user to complete it later
Priority: Essential

R5.3 The system must allow user to record the receipt of a paper application and application data
Priority: Essential

R5.4 The system must assign an application identifier to each application submitted or recorded for an opportunity
Priority: Essential

R5.5 The system must allow user to copy applicant registration information to an application
Priority: Essential

R5.6 The system must allow electronic authentication of an on-line application form
Priority: Essential

R5.7 The system must send positive acknowledgement in either email or generate a paper letter with the date and time of application receipt
Priority: Essential

R5.8 The system must allow applicant to display the status of their application in the evaluation process (use case 6)
Priority: Essential

R5.9 The system must record the opportunity identifier and date/time of application submission in a log
Priority: Essential

R5.10 The system must allow user to display application events by opportunity identifier, date range or user-id
Priority: Essential

5.5.6. Use Case 6 – Evaluate Application

R6.1 The system must display links to a user's outstanding work items for each workflow in which the user is a participant
Priority: Essential

R6.2 The system must route a submitted sub-grant application according to the current evaluation workflow stored for the sub-grant
Priority: Essential

R6.3 The system must alert an evaluator of submitted sub-grant application according to the current evaluation workflow stored for the sub-grant
Priority: Essential

R6.4 The system must allow user to enter a project identifier (at least 10 characters) while evaluating an application
Priority: Essential

R6.5 The system must generate a scorecard based on the published evaluation criteria, including each criteria with number, description, possible points, weight, priority
Priority: High

R6.6 The system must allow application evaluator to add scores and notes to a scorecard
Priority: High

R6.7 The system must allow user to generate an award list based on all scorecards for a sub-grant
Priority: High

R6.8 The system must allow user to publish or distribute a draft award list via email
Priority: Essential

R6.9 The system must update the status of an application according to its progress through the workflow
Priority: Essential

R6.10 The system must allow user to display an applicant's other agreements and applications while evaluating an application
Priority: Essential

R6.11 The system must allow user to display an applicant's performance record available during evaluation
Priority: Essential

R6.12 The system must record the user-id, opportunity identifier and date/time of application evaluation event in a log
Priority: Essential

R6.13 The system must allow user to display evaluation events by opportunity number, date range or user-id
Priority: Essential

AR6.1 The system must allow user to specify format of draft award list and method of publishing
Priority: High

5.5.7. Use Case 7 – Award Decision

R7.1 System must allow user to specify which application is to be awarded
Priority: Essential

R7.2 System must allow user to generate, using application data, an award notice to recipient and rejection notices to applicants in either email or a document
Priority: Essential

R7.3 System must allow user to change a generated award/rejection email or document before sending
Priority: Essential

R7.4 System must copy awarded applicant's information to agreement information
Priority: Essential

5.5.8. Use Case 8 – Set Up/Change Agreement Info, Terms and Conditions

R8.1 The system must allow user to enter an agreement identifier at least 15 characters long (including agency identifier)
Priority: Essential

R8.2 The system must be able to generate an agreement identifier in a pre-defined format at least 15 characters long (including agency identifier)
Priority: Essential

R8.3 The system must allow user to store, update and select agreement formats by agreement type, agency, program type, program and project
Priority: Essential

R8.4 The system must allow user to enter, change and select boilerplate agreement text by agreement type, agency, program type, program and project
Priority: Essential

R8.5 The system must allow user to enter and update agreement information, either during or after the competitive process
Priority: Essential

R8.6 The system must allow entry of work orders on a contract
Priority: Essential

R8.7 The system must allow recording of business rules for agreement information, e.g., end date must be later than start date; work order amounts must not exceed contract amount
Priority: Essential

R8.8 The system must apply business rules to requests to enter and update agreements and allow/disallow entry based on the business rules
Priority: Essential

R8.9 The system must allow optional generation of a new agreement number after award
Priority: Essential

R8.10 The system must allow attaching documents in MS Office, pdf or graphics format
Priority: Essential

R8.11 The system must inspect attachments for viruses before accepting and storing with the agreement
Priority: Essential

R8.12 The system must allow entry of more than one name for a recipient or vendor
Priority: Essential

R8.13 The system must allow entry of more than one address for a recipient or vendor
Priority: Essential

R8.14 The system must allow user to copy applicant's information from the application to the recipient/vendor file
Priority: Essential

R8.15 The system must allow entry of more than one set of geographic coordinates for an agreement, i.e., location of recipient and location of work
Priority: Essential

R8.16 The system must allow entry of milestones and outcomes expected for an agreement
Priority: Essential

R8.17 The system must allow entry of one or more enterprise performance activities to which the agreement contributes
Priority: Essential

R8.18 The system must allow entry of sub-project identifier (up to 10 characters) while recording an agreement
Priority: Essential

R8.19 The system must allow entry of funding source: state, federal, other
Priority: Essential

R8.20 The system must allow entry of an unlimited number of document or other identifiers associated with an agreement
Priority: Essential

R8.21 The system must allow entry of an agreement risk indicator
Priority: Essential

R8.22 The system must allow setting indicator flags for an agreement, including one for sub-recipient monitoring
Priority: Essential

R8.23 The system must allow entry of a short description and a separate long description up to 6000 characters
Priority: Essential

R8.24 The system must allow entry of incomplete agreement information, save it and allow user to complete it later
Priority: Essential

R8.25 The system must allow electronic authentication of an on-line agreement form
Priority: Essential

R8.26 The system must be able to restrict updating agreements by type of agreement (sub-grant/contract/loan) and by program and project
Priority: Essential

R8.27 The system must record the user-id, agreement identifier and date/time of agreement update in a log
Priority: Essential

R8.28 The system must allow user to display agreement events by agreement identifier, date range or user-id
Priority: Essential

AR8.1 The system must allow recording agency-definable fields with an agreement
Priority: Essential

AR8.2 The system must be able to use different sets of item values for different agencies
Priority: Essential

AR8.3 The system must allow user to record different formats of agreement outcomes for different agencies, programs and projects
Priority: High

5.5.9. Use Case 9 – Set Up/Change Agreement Schedule

R9.1 The system must allow user to specify and maintain the correct calendar schedule for an agreement, including: date, expected event, notification interval, and persons to notify
Priority: Essential

R9.2 The system must allow user to specify what event will stop a notification
Priority: Essential

R9.3 The system must integrate agreement calendars and workflows so that receipt of a document to workflow satisfies the calendar event
Priority: Essential

R9.4 The system must allow user to indicate that a calendar event has been satisfied
Priority: Essential

R9.5 The system must set and update at least these statuses of calendar events: due, overdue, satisfied
Priority: Essential

R9.6 The system must allow user to display agreements by status of certain calendar events
Priority: Essential

R9.7 The system must allow user to specify and select default calendar schedules for agreements
Priority: Essential

R9.8 The system must allow user to copy one agreement calendar schedule to another
Priority: Essential

R9.9 The system must notify or not notify users according to the calendar schedule for an agreement
Priority: Essential

R9.10 The system must allow agreement schedules that last longer than 50 years
Priority: Essential

R9.11 The system must record the user-id, agreement identifier and date/time of agreement schedule update in a log
Priority: Essential

R9.12 The system must allow user to display agreement schedule events by agreement number, date range or user-id
Priority: Essential

5.5.10. Use Case 10 – Set Up/Change Agreement Budget

R10.1 The system must allow user to specify and maintain the budget for an agreement at both total and line-item levels
Priority: Essential

R10.2 The system must not require a budget for all agreements, according to business rules
Priority: Essential

R10.3 The system must allow entry of state obligated percent amount if different from total agreement budget
Priority: Essential

R10.4 The system must allow entry and calculation of terms of payment including amount to be paid for each deliverable
Priority: Essential

R10.5 The system must allow entry and calculation of terms of payment including different kinds of match requirements (%) and retain/release requirements (%)
Priority: Essential

R10.6 The system must allow entry and calculation of terms of payment types including: in-kind percent and maximum in-kind amount; interlocal percent and maximum interlocal amount
Priority: Essential

R10.7 The system must allow entry of priorities of different terms of payment types including: cash; interlocal; in-kind; cash plus in-kind; cash plus in-kind plus interlocal
Priority: Essential

R10.8 The system must allow user to specify business rules for calculation of payment amount based on agreement budget terms of payment
Priority: Essential

R10.9 The system must allow user to specify a budget as locked to changes
Priority: Essential

R10.10 The system must allow user to store and update a request for payment report form for an agreement, including deliverables and budget line items
Priority: Essential

R10.11 The system must allow user to specify business rules edits in a request for payment form for an agreement
Priority: Essential

R10.12 The system must store and allow user to retrieve different versions of an agreement budget
Priority: Essential

R10.13 The system must allow for verification of funding codes and amounts with an enterprise fiscal system
Priority: Essential

R10.14 The system must record the user-id, agreement identifier and date/time of budget update in a log
Priority: Essential

R10.15 The system must allow user to display agreement budget events by agreement number, date range or user-id
Priority: Essential

AR10.1 The system must allow for verification of funding codes and amounts
Priority: Essential

5.5.11. Use Case 11 – Set Up/Change Agreement Workflow

R11.1 The system must allow user to specify and maintain the correct workflow to monitor an agreement
Priority: Essential

R11.2 The system must allow persons other than state agency staff to participate in agreement workflows
Priority: Essential

R11.3 The system must include at least these participant actions in a customizable agreement workflow: alert, confirm, delegate, approve, reject, close
Priority: Essential

R11.4 The system must include the ability to set customizable workflow for at least these agreement event types: budget or schedule change; amendment; deliverable; progress report; financial transaction; audit; close – financial; close – program
Priority: Essential

R11.5 The system must include at least these attributes for a customizable agreement workflow event: type, trigger, frequency/schedule, sequence, content, recipients, approver, follow-up requirements, restrictions and suppression criteria
Priority: Essential

R11.6 The system must include at least these attributes for a customizable agreement workflow participant: contact information, group and subgroup affiliation, group and subgroup relationships, delegation default
Priority: Essential

R11.7 The system must allow an agreement workflow participant to display his/her outstanding work
Priority: Essential

R11.8 The system must allow user to copy one agreement workflow to another
Priority: Essential

R11.9 The system must allow agreement workflow and agreement schedule to work in concert with each other
Priority: Essential

R11.10 The system must store and allow user to retrieve different versions of an agreement workflow
Priority: Medium

R11.11 The system must record the user-id, sub-grant identifier and date/time of agreement workflow event in a log
Priority: Essential

R11.12 The system must allow user to display agreement workflow events by agreement number, date range or user-id
Priority: Essential

R11.13 The system must be able to receive workflow participant information from an enterprise HR system
Priority: High

5.5.12. Use Case 12 – Amend an Agreement

R12.1 The system must allow user to enter and update an amendment to an agreement by copying from the agreement or another amendment
Priority: Essential

R12.2 The system must allow recording of business rules for agreement amendment information, e.g., which items may be changed
Priority: Essential

R12.3 The system must apply business rules to requests to amend agreements and allow/disallow update based on the business rules
Priority: Essential

R12.4 The system must allow recording of formal and informal amendments
Priority: Essential

R12.5 The system must allow user to select the original contract or any amendment to display or update
Priority: Essential

R12.6 The system must allow user to display the current values for each agreement, including changes and amendments
Priority: Essential

R12.7 The system must allow entry of incomplete amendment information, save it and allow user to complete it later
Priority: Essential

R12.8 The system must be able to restrict user updating amendments by type of agreement (sub-grant/contract/loan) and by program and project
Priority: Essential

R12.9 The system must allow electronic authentication of an on-line amendment form
Priority: Essential

R12.10 The system must record the user-id, agreement identifier, recipient identifier and date/time of amendment update in a log
Priority: Essential

R12.11 The system must allow user to display amendment events by agreement number, recipient identifier, date range or user-id
Priority: Essential

5.5.13. Use Case 13 – Monitor Agreement

R13.1 The system must allow user to see all information for an agreement in a consolidated display, e.g., agreement with "tabs" for different kinds of agreement information
Priority: Essential

R13.2 The system must allow user to display a summary of an agreement, including: current start and end dates, current amount remaining, deliverables status, agreement workflow status, notes
Priority: Essential

R13.3 The system must allow user to specify which agreement summary items should appear on a summary report for a certain agreement
Priority: High

R13.4 The system must allow user to update and display agreement information after the agreement is closed
Priority: Essential

R13.5 The system must allow user to display the schedule for an agreement
Priority: Essential

R13.6 The system must allow workflow participant to display his/her outstanding work by agreement identifier
Priority: Essential

R13.7 The system must allow user to record recipient/vendor performance information by agency and state program
Priority: Essential

R13.8 The system must allow user to record recipient/vendor risk information by agency and state program
Priority: Essential

5.5.14. Use Case 14 – Report Progress

R14.1 The system must allow user to store and update agreement progress report formats
Priority: Essential

R14.2 The system must allow user to select an agreement progress report format to use for an agreement
Priority: Essential

R14.3 The system must allow user to specify business rules edits in an agreement progress report form including changes from agreement budget
Priority: Essential

R14.4 The system must allow recipient to request, complete and submit a progress report form for an agreement
Priority: Essential

R14.5 The system must allow entry of incomplete agreement progress report information, save it and allow user to complete it later
Priority: High

R14.6 The system must allow electronic authentication of an on-line progress report form
Priority: Essential

R14.7 The system must allow user to record the receipt of a paper progress report and progress data
Priority: Essential

R14.8 The system must allow user to view all progress reports for an agreement within a date range
Priority: High

R14.9 The system must record the user-id, agreement identifier and date/time of progress report events in a log
Priority: Essential

R14.10 The system must allow user to display progress report events by agreement number, date range or user-id
Priority: Essential

AR14.1 The system must allow user to enter, update and select agreement progress report formats for the programs and projects valid for the agency
Priority: High

5.5.15. Use Case 15 – Report to Funding Source

R15.1 The system must allow user to store and update agreement funder progress report formats
Priority: Essential

R15.2 The system must allow user to select an agreement funder progress report format to use for an agreement
Priority: Essential

R15.3 The system must allow user to specify business rules edits in an agreement funder progress report form
Priority: Essential

R15.4 T The system must allow user to request and complete a funder progress report form for an agreement
Priority: Essential

R15.5 The system must allow entry of incomplete funder progress report information, save it and allow user to complete it later
Priority: High

R15.6 The system must allow user to view all funder progress reports for an agreement within a date range
Priority: Essential

R15.7 The system must record the user-id, agreement identifier and date/time of progress report events in a log
Priority: Essential

R15.8 The system must allow user to display funder progress report events by agreement number, date range or user-id
Priority: Essential

AR15.1 The system must allow user to enter, update and select funder progress report formats for the programs and projects valid for the agency
Priority: High

5.5.16. Use Case 16 – Request Information on Agreement(s)

R16.1 The system must allow enterprise user to specify data items that must appear on all forms for agreements ("enterprise-required")
Priority: Essential

R16.2 The system must be able to require data items designated as "enterprise-required" on all forms for agreements
Priority: Essential

R16.3 The system must allow user to search for agreements based on any agreement data item value, or, in the case of dates and amounts, a range of values
Priority: Essential

R16.4 The system must allow user to search on keyword values in descriptions or notes
Priority: Essential

R16.5 The system must allow user to specify at least four criteria, counting ranges as one criteria
Priority: Essential

R16.6 The system must allow user to specify items to appear on result list
Priority: Essential

R16.7 The system must allow user to specify sequence of items appearing on result list
Priority: Essential

R16.8 The system must allow pass through of request to the statewide enterprise reporting program
Priority: Essential

R16.9 The system must allow user to report on data from external data sources, e.g., US census data
Priority: Essential

5.5.17. Use Case 17 – Request a Payment

R17.1 The system must allow recipient to request, complete and submit a request for payment form
Priority: Essential

R17.2 The system must allow an electronic signature on a request for payment form
Priority: Essential

R17.3 The system must store payment request data items with the agreement
Priority: Essential

R17.4 The system must allow user to view all requests for payment for an agreement within a date range
Priority: Essential

R17.5 The system must allow electronic authentication of an on-line request for payment form
Priority: Essential

R17.6 The system must record the user-id, agreement identifier and date/time of requests for payment events in a log
Priority: Essential

R17.7 The system must allow user to display request for payment events by agreement number, date range or user-id
Priority: Essential

5.5.18. Use Case 18 – Process a Payment Request

R18.1 The system must display links to a user's outstanding work items for each agreement workflow in which the user is a participant
Priority: Essential

R18.2 The system must route a submitted request for payment according to the current workflow stored for the agreement
Priority: Essential

R18.3 The system must alert an agreement manager of submitted request for payment according to the current workflow stored for the agreement
Priority: Essential

R18.4 The system must allow payment processor to add notes to the request being processed
Priority: Essential

R18.5 The system must update the status of a payment request according to its progress through the workflow
Priority: Essential

R18.6 The system must allow user to record the receipt of a paper request for payment and request data
Priority: Essential

R18.7 The system must calculate actual payment based on rules in agreement budget (use case 10)
Priority: Essential

R18.8 The system must prevent approval of payment that will exceed agreement budget
Priority: Essential

R18.9 The system must allow user to display all payment requests and amounts paid for an agreement, with remaining balance
Priority: Essential

R18.10 The system must allow transmission of approved payment requests for actual payment amounts to AFRS
Priority: Essential

R18.11 The system must allow manual or automatic update of payment information from AFRS
Priority: Essential

R18.12 The system must record the user-id, agreement identifier and date/time of a payment processing event in a log
Priority: Essential

R18.13 The system must allow user to display payment processing events by agreement number, date range or user-id
Priority: Essential

AR18.1 The system must notify fiscal staff that payment request data is waiting to be approved
Priority: Essential

5.5.19. Use Case 19 – Process a Financial Adjustment

R19.1 The system must route a submitted financial transaction according to the current workflow stored for the agreement
Priority: Essential

R19.2 The system must alert an agreement manager of submitted financial transaction according to the current workflow stored for the agreement
Priority: Essential

R19.3 The system must allow transaction processor to add notes to the request being processed
Priority: Essential

R19.4 The system must update the status of a transaction request according to its progress through the workflow
Priority: Essential

R19.5 The system must include all financial transactions in calculations of displayed agreement balance
Priority: Essential

R19.6 The system must allow transmission of approved transaction requests to AFRS
Priority: Essential

R19.7 The system must allow manual or automatic update of transaction information from AFRS
Priority: Essential

R19.8 The system must use accounting practices compliant with Sarbanes-Oxley requirements
Priority: Essential

R19.9 The system must record the user-id, agreement identifier and date/time of a financial transaction event in a log
Priority: Essential

R19.10 The system must allow user to display financial transaction events by agreement number, date range or user-id
Priority: Essential

5.5.20. Use Case 20 – Evaluate/Inspect/Audit a Grant

R20.1 The system must notify managers, inspectors and auditors of upcoming reviews needed
Priority: Essential

R20.2 The system must allow user to record the results of an inspection or audit
Priority: Essential

R20.3 The system must store recorded inspection or audit results with the agreement and the recipient/vendor
Priority: Essential

R20.4 The system must allow authorized user to display inspection or audit results for an agreement
Priority: Essential

R20.5 The system must route an inspection or audit report according to the current workflow stored for the agreement
Priority: Essential

R20.6 The system must allow authorized user to find and display inspection or audit results for a recipient
Priority: Essential

R20.7 The system must allow user to specify and track follow-up activities as a result of an audit or inspection
Priority: Essential

R20.8 The system must record the user-id, agreement identifier and date/time of inspection/audit event in a log
Priority: Essential

R20.9 The system must allow user to display inspection/audit events by agreement identifier, date range or user-id
Priority: Essential

5.5.21. Use Case 21 – Close Out Agreement

R21.1 The system must notify managers of upcoming agreement closings
Priority: Essential

R21.2 The system must allow user to record financial and program closing information
Priority: Essential

R21.3 The system must allow user to record recipient evaluation information
Priority: Essential

R21.4 The system must store recorded closing information with the agreement
Priority: Essential

R21.5 The system must allow authorized user to display closing information for an agreement
Priority: Essential

R21.6 The system must route a financial or program closing according to the current workflow stored for the agreement
Priority: Essential

R21.7 The system must allow recording of business rules for financial and program closing an agreement, e.g., no payment requests outstanding
Priority: Essential

R21.8 The system must apply business rules to requests to enter closing information and allow adding/disallow based on the business rules
Priority: Essential

R21.9 The system must generate a close-out letter to the recipient/vendor
Priority: Essential

R21.10 The system must allow user to record the receipt of a signed close-out letter from the recipient/vendor
Priority: Essential

R21.11 The system must record the user-id, agreement identifier and date/time of a closing event in a log
Priority: Essential

R21.12 The system must allow user to display closing events by agreement identifier, date range or user-id
Priority: Essential

R21.13 The system must allow user to specify an agreement as eligible for archiving
Priority: Essential

AR21.1 The system must notify fiscal staff of close out
Priority: Essential

5.5.22. Use Case 22 – Send Information To/From AFRS

R22.1 The system must collect all data needed for an AFRS A/P transaction
Priority: Essential

R22.2 The system must compile an AFRS A/P transaction for transmission
Priority: Essential

R22.3 The system must send a transaction to AFRS for payment requests and other financial transactions
Priority: Essential

R22.4 The system must receive, interpret and handle AFRS error messages
Priority: Essential

R22.5 The system must be able to receive AFRS acknowledgement of a financial transaction
Priority: Essential

R22.6 The system must update the payment information for an agreement based on the response from AFRS
Priority: Essential

5.5.23. Use Case 23 – Make Information Available to Other Systems

R23.1 The system must make data items available to other applications in a standard format
Priority: Essential

R23.2 The system must make data items available to other applications in real time
Priority: High

R23.3 The system must allow user to specify the applications that have permission to access data, using the roles described in use case 29
Priority: Essential

R23.4 The system must log all application accesses
Priority: Essential

R23.5 The system must allow user to view the log of application accesses
Priority: Essential

5.5.24. Use Case 24 – Deleted

5.5.25. Use Case 25 – Deleted

5.5.26. Use Case 26 – Deleted

5.5.27. Use Case 27 – Get Help on System Use

R27.1 The system must allow user to request help on any page where user may enter or request data
Priority: Essential

R27.2 The system must display clear and specific explanations of all items and instructions for all data entry items on the page
Priority: Essential

R27.3 The system must allow a system administrator to update help pages
Priority: Essential

AR27.1 The system must allow agency system administrators to update help pages for their agency
Priority: High

5.5.28. Use Case 28 – Sign On to System

R28.1 The system must allow user to access the system with a certain role
Priority: Essential

R28.2 The system must require a user to set a hardened password
Priority: Essential

R28.3 The system must require a user to change his/her password at a configurable interval
Priority: Essential

R28.4 The system must be able to lock out a user after a configurable number of failed sign on attempts
Priority: Essential

R28.5 The system must be able to log out a user after a configurable period of inactivity
Priority: Essential

R28.6 The system must log all users' access to the system
Priority: Essential

AR28.1 System must allow agency staff to sign on once and pass their identity information to the system
Priority: High

5.5.29. Use Case 29 – Control Access to System

R29.1 The system must allow user to display all users authorized to access the system and their roles
Priority: Essential

R29.2 The system must allow user to define access roles to read or update agreement data based on: agency; type of agreement (grant/contract/loan); program; project; agreement; type of data (e.g., financial); transaction
Priority: Essential

R29.3 The system must allow user to enforce separation of financial duties for users
Priority: Essential

R29.4 The system must allow a system administrator role which may not access business transactions or data
Priority: Essential

R29.5 The system must not allow shared user-id's
Priority: Essential

R29.6 The system must keep user lists secure and separate from other data
Priority: Essential

R29.7 The system must log all access and changes to user lists
Priority: Essential

R29.8 The system must allow user to display user list access log based on user-id and date
Priority: Essential

R29.9 The system must allow user to display user system access log based on user-id and date
Priority: Essential

R29.10 System must allow interface with an enterprise HR system to update user list when a person leaves an agency
Priority: High

5.5.30. Use Case 30 – Update System Tables

R30.1 The system must allow user to add or change item value tables
Priority: Essential

R30.2 The system must restrict agency system administrator to changing only tables for that agency
Priority: Essential

R30.3 The system must allow user to add a data value table for a new data item
Priority: Essential

R30.4 The system must make all item values immediately available to searches
Priority: Essential

R30.5 The system must allow user to specify business rules for updating an item value table
Priority: Essential

R30.6 The system must enforce business rules for a data value table and allow/disallow an update based on the rules
Priority: Essential

R30.7 The system must allow indicating a date range for a data value, i.e., starting and ending effective dates
Priority: Essential

R30.8 The system must log all changes to data item tables
Priority: Essential

R30.9 The system must allow user to display data table access log based on user-id and date
Priority: Essential

R30.10 The system must allow downloading of external data
Priority: Essential

AR30.1 The system must allow user to add or change item value tables specific to an agency
Priority: Essential

AR30.2 The system must allow user to add an agency-specific data value table for a new agency-specific data item
Priority: Essential

5.5.31. Use Case 31 – Add Agency

R31.1 The system must allow user to add an agency to use the system
Priority: Essential

R31.2 The system must allow entry of information about a user agency
Priority: Essential

R31.3 The system must log all access and changes to agency attributes
Priority: Essential

R31.4 The system must allow user to display agency attributes access log based on user-id and date
Priority: Essential

5.5.32. Use Case 32 – Maintain Recipient/Vendor Information

R32.1 The system must allow user to add or change recipient tables
Priority: Essential

R32.2 The system must restrict agency system administrator to changing only recipient tables for that agency
Priority: Essential

R32.3 The system must allow user to specify business rules for updating a recipient table entry
Priority: Essential

R32.4 The system must enforce business rules for a recipient table entry and allow/disallow an update based on the rules
Priority: Essential

R32.5 The system must allow indicating a date range for a recipient entry, i.e., starting and ending effective dates
Priority: Essential

R32.6 The system must allow reconciling recipient table entries with each other and with other agency vendor tables
Priority: Essential

R32.7 The system must allow establishing relationships between recipients/vendors, e.g., a division of a vendor organization has a "child" relationship to the organization
Priority: High

R32.8 The system must log all changes to recipient tables
Priority: Essential

R32.9 The system must allow user to display recipient table access log based on user-id and date
Priority: Essential

AR32.1 The system must allow user to add or change recipient tables specific to an agency
Priority: Essential

5.5.33. Use Case 33 – Track Agreement Deliverables

R33.1 The system must allow user to record descriptions of an unlimited number of agreement deliverables
Priority: Essential

R33.2 The system must allow user to record evaluation criteria for all agreement deliverables
Priority: Essential

R33.3 The system must allow user to record status and status date for all agreement deliverables
Priority: Essential

R33.4 The system must allow user to record receipt of an agreement deliverable
Priority: Essential

R33.5 The system must route a request to evaluate a deliverable according to the current workflow stored for the agreement, when a deliverable is received
Priority: Essential

R33.6 The system must record the user-id, agreement identifier and date/time of deliverables update in a log
Priority: Essential

R33.7 The system must allow user to display deliverables events by agreement number, date range or user-id
Priority: Essential

5.5.34. Use Case 34 – Track Agreement Outcomes

R34.1 The system must allow user to record descriptions of an unlimited number of agreement outcomes
Priority: Essential

R34.2 The system must allow user to record evaluation criteria for all agreement outcomes
Priority: Essential

R34.3 The system must allow user to record the performance activity to which the agreement outcome contributes
Priority: Essential

R34.4 The system must allow user to record status and status date for all agreement outcomes
Priority: Essential

R34.5 The system must allow user to search for agreement outcomes contributing to a performance activity or other "enterprise-required" data item and display the outcomes
Priority: Essential

R34.6 The system must record the user-id, agreement identifier and date/time of outcome update in a log
Priority: Essential

R34.7 The system must allow user to display outcome events by agreement number, date range or user-id
Priority: Essential

5.5.35. Use Case 35 – Register to Apply for a Sub-Grant

R35.1 The system must allow user to register once to apply for a sub-grant
Priority: Essential

R35.2 The system must allow user to change registry information
Priority: Essential

R35.3 The system must evaluate user's registration against business rules
Priority: Essential

R35.4 The system must assign a recipient identifier to each registered applicant
Priority: Essential

R35.5 The system must store user's registration information
Priority: Essential

R35.6 The system must require correct identification and password to display or change a user's registration information
Priority: Essential

6. Non-Functional Requirements

6.1. Operating Environment

The solution must run in a currently-supported Microsoft environment and use an application deployment model that can be efficiently managed across agency implementations including field locations with different versions of Microsoft operating system software.

Also, given the likely direction of statewide enterprise architecture recommendations, it is highly desirable that the solution be capable of supporting a Service Oriented Architecture (SOA).

6.2. External Interfaces

The solution must allow access from standard pc hardware across the statewide intergovernmental network (IGN) and through the DIS Fortress server.

It must be able to send data to other applications such as the statewide AFRS financial system and make data available to agency or other systems using industry standard XML formats. It must be able to integrate with users' Microsoft desktop software.

The solution must provide a user interface that meets the OFM architecture principles for self service applications, informed business decision makers, and presenting a single face to customers, i.e., "intuitive, helpful and bullet-proof user interfaces…that are tailored to decision makers' process...[and present] services to customers as an integrated whole instead of separate products on separate platforms."

6.3. Availability

The solution must be available for public use during extended hours, except for maintenance, 24 hours Monday through Saturday and at least 6:00 am to 6:00 pm on Sundays.

6.4. Performance

Performance of a system is a result of many factors and may vary based on a user's configuration. The CTED requirements document sets a standard of no more than five seconds for an external user and no more than two seconds for an internal user. Reports on large amounts of data may take longer.

The system must allow for 300 concurrent users for its first version, and more than 1000 concurrent users for eventual rollout, without performance degradation.

The solution must afford a way for a system administrator to monitor response time, system use and capacity, concurrent users, and system errors.

For report and query performance, the system must be able to archive disposed data and to retain it for a minimum of six years.

6.5. Quality

To meet OFM architecture principles, the application must:

- Use understandable data terms and definitions, to enable queries and reports.
- Use user interfaces that are as tailored to users' processes as feasible.
- Allow the use of separate data sources for online transaction processing and analytical processing.
- Show error messages that clearly state the problem and remedial action.

6.6. Maintainability and Support

To meet OFM architecture principles, the application must:

- Support all requirements for multiple agencies using one instance of the application and one instance of the database. Certain tables may be configured for different agencies.
- Use OFM standard architecture: Active Directory authentication and user management, allow use of Crystal Enterprise reporting and cross-agency common workflow/routing.
- Use open standards and loose integration (as indicated in other requirements), to minimize the impact of version migration.
- Allow central administration of data.
- Use a layered architecture with clear logical boundaries.
- Use message-based and loosely coupled interfaces.
- Use event-driven transactions.
- Design components to support a small set of functions for ease of testing.

- Use sharable components, to the extent feasible.
- Use existing OFM components to the extent feasible.
- Allow central administration of business rules.
- Have vendor support available for system problems and issues.
- Be supported by a vendor with a history of stability and a solid financial and competitive position
- Provide capability to roll back partially-completed database transactions
- All external interfaces will be based on real-time messaging with guaranteed delivery – or via file import/export
- Allow business rules to be created and changed externally from the application, so system software does not need to be reconfigured and redeployed.

6.7. Statewide Enterprise Architecture

The application should align with the direction from the Washington State Enterprise Architecture Program and supported by the stakeholders of this project. The Integration Domain of the State's Technology Architecture is a key consideration.

The elements most critical for consideration and alignment are:

In-Bound Integration

The application should provide access to the application through Application Programmable Interfaces (API) independent of the user interface. The application should have well documented and unrestricted (both technically and by license) API's.

The DIS Chief Architect estimates that 80% or more of the cost of integration can be attributed to the degree to which the application's user interface is separate from the rest of the application, especially the business rules and the API's.

Out-Bound Integration

Other applications should be isolated as much possible from changes in the solution system. This requires the application to have an interface between the business logic and the enterprise financial functions. Functional dependencies (e.g., business rules for messaging) should be separate from non-functional dependencies (e.g., types of messaging).

The goal is to minimize the impact on a system of changes to its integration partners. The technical goals are isolation and loose coupling between systems.

Opens Standards Conformance:

The application should use open (vendor-neutral) industry standards-based technologies, unless there is a strong business case justifying a proprietary alternative. If a proprietary solution is chosen, there is a need to ensure one or more "adapter strategies" is available to render the proprietary solution "open" to other statewide applications.

6.8. Documentation

There must be clear and comprehensive documentation on the solution:

- Installation documentation that allows OFM to install the system and to determine the impact of installation.
- System documentation that allows OFM to determine the impact of implementation AND the impact of ongoing maintenance and support. Documentation must show:
  - How the application is designed conceptually.
  - Platforms the application uses.
  - How the application can support OFM standard architecture (above).
  - How the application supports external interfaces.
  - Development tools needed for application maintenance.
  - Any 3rd-party applications embedded in the application.
  - The application's use of controls to assure confidentiality, integrity and availability.
  - The application's use of controls to protect data in transmission and data at rest.
  - Documentation may take these forms:
    - Conceptual solution.
    - Object model.
    - Data design.
    - Security plan.
    - Integration design.
    - Platform architecture.
    - Version release documentation.
- System administration documentation, including controls and access to system data and reports.
- System training documentation.

- User documentation, including online help. User documentation should clearly describe the procedures that will maintain the operational quality of the system.
- Vendor support terms.

6.9. Security

To meet OFM security principles, the application must:

- Include and enforce user permissions and restrict access to data at the agency, individual, agreement type, and data type levels.
- Allow integration with single sign-on authentication and/or standard OFM authentication methods.
- Enforce the State strong password and password expiration guidelines.
- Protect data from wrongful access, both transactional and query.
- Use secure protocols for data transfer between applications.
- Include access controls for all data storage and all data transmission.
- Include trace information: who did what, when, and using what computer.
- Derive tracing information automatically where feasible.
- Enforce division of duties and report exceptions.
- Clearly warn users against putting confidential information into the system (OFM's warning).
- Follow the security standards of the Washington State Information Services Board published at this link: http://isb.wa.gov/policies/security.aspx.

6.10. Accessibility

The system must adhere to the Web Accessibility Requirements and the Software Accessibility requirements published by OFM in June, 2005. The principles are:

Principle 1: Content must be perceivable.

1.1 Provide text alternatives for all non-text content.

1.2 Provide synchronized alternatives for multimedia.

1.3 Ensure that information, functionality, and structure are separable from presentation.

1.4 Make it easy to distinguish foreground information from background images or sounds.

Principle 2: Interface elements in the content must be operable.

2.1 Make all functionality operable via a keyboard or a keyboard interface.

2.2 Allow users to control time limits on their reading or interaction.

2.3 Allow users to avoid content that could cause seizures due to photosensitivity.

2.4 Provide mechanisms to help users find content, orient themselves within it, and navigate through it.

2.5 Help users avoid mistakes and make it easy to correct them.

Principle 3: Make text content readable and understandable.

3.1 Ensure that the meaning of content can be determined.

3.2 Organize content consistently from "page to page" and make interactive components behave in predictable ways.

Principle 4: Content must be robust enough to work with current and future technologies.

4.1 Use technologies according to specification.

4.2 Ensure that user interfaces are accessible or provide an accessible alternative(s).

The Software Accessibility requirements are:

6.10.1. Keyboard Access

At least one keyboard method must be available for any function, if that function or its result can contain a text label or can be identified with text. Applicable keyboard functionality may include, as appropriate, navigation by Tabbing, Access Keys, and Pull Down Menus with Hot Keys.

6.10.2. Object Information

The identity, operation and state of all user interface elements must be available to assistive technology through the use of text labels. When an image is used to represent a program element, the information conveyed by the image must also be available in text.

6.10.3. Accessibility Features

Applications must not disrupt or disable activated and documented accessibility features of other products where those features are developed according to industry standards. Applications also must not disrupt or disable activated and documented accessibility features of the operating system.

6.10.4. Input Focus

A well-defined on-screen indication of the current focus must be provided that moves among interactive interface elements as the input focus changes. The focus must be programmatically exposed so that assistive technology can track focus and focus changes.

6.10.5. Bitmap Images

When bitmap images are used to identify controls, status indicators, or other programmatic elements, the meaning assigned to those images must be consistent throughout the application. Inconsistent use of program elements violates good practices in Programming Usability, UI Design, and Accessible Software Design.

6.10.6. Textual Information

Text content, text input caret location, and text attributes must be provided through operating system functions for displaying text.

6.10.7. User Selected Attributes

User selected attributes in the operating system, such as color and contrast selections must be respected by the application.

6.10.8. Animation

At least one non-animated presentation mode must be available. This requirement can be met by allowing the user to skip animation or can be met by providing the information being delivered by the animation in an accessible, non-animated form.

6.10.9. Color Coding

Color must not be the only means of conveying information such as an action, prompting a response, or distinguishing a visual element. Use of color to convey information is not discouraged. Only the use of color as the only means of communicating information is forbidden.

6.10.10. Color and Contrast

If the user is allowed to adjust color and contrast, a range of color and contrast options must be provided to accommodate varying visual needs. This does not require that the application allow the user to adjust color and contrast settings. For most applications, support of the operating system color choices for text and background colors will meet this requirement.

6.10.11. Flicker Rate

Software must not use flashing or blinking text, objects, or other elements having a flash or blink frequency greater than 2 Hz and lower than 55 Hz.

6.10.12. Electronic Forms

Forms must allow people using assistive technology to access the information, field elements, and functionality required for completion and submission of the form, including all directions and cues. If keyboard alternatives are provided for navigating through a form, and all elements of the form, including fields to be completed, have sufficiently descriptive text labels located near them, the form is more likely to meet this requirement.

6.11. Implementation

To meet OFM architecture and security principles, the application must:

- Include adequate provision for testing to assure quality and compliance with requirements.
- Allow an incremental approach to the upgrade and replacement of the system.
- Be flexible for different agency needs.

- Support product suites instead of individual systems, with the goal of one model for service delivery to all customers.
- Include vendor support for implementation.

6.12. Conversion

The data structures of the solution must allow for conversion of current agency sub-grant, contract and loan system and ad hoc database data. Specific requirements of conversion have not been determined.

Appendix A. Revision Log

Date	Description	Author
Feb. 7, 2006	Draft submitted for review	Carol Baque
Feb. 24, 2006	Revised after review by User Group, Ecology, CTED, OFM: *Use case 1:* change all requirements to "opportunity"; delete former R1.10; add AR1.1 (previously omitted) *Use case 2:* delete former R2.7; add R2.8; change R2.1, R2.2, R2.5, R2.10, R2.11; add AR2.1 and AR2.2 (previously omitted) *Use case 3:* delete former R3.6; change R3.1, R3.2, R3.5, R3.8, R3.9; add AR3.2 and AR3.2 (previously omitted) *Use case 4:* delete former R4.11; add R4.7; change R4.10, R4.12, R4.13; add AR4.1 (previously omitted) *Use case 5:* add R5.6, R5.7, R5.8, R5.10; change R5.4, R5.5, R5.9 *Use case 6:* add R6.4, R6.10; change R6.5, R6.11; add AR6.1 (previously omitted) *Use case 7:* add R7.3; change R7.2 *Use case 8:* add R8.1, R8.2, R8.14, R8.18 – 22, R8.25; change R8.7; add AR8.1 – 3 (previously omitted) *Use case 9:* add R9.3 – 6 *Use case 10:* add R10.3 – 9; change R10.13, AR10.1 *Use case 11:* add AR11.1 (previously omitted) *Use case 12:* change R12.1, R12.9, R12.10 *Use case 13:* add R13.7, R13.8 *Use case 14:* add R14.6, change R14.3, add AR14.1 (previously omitted) *Use case 15*: add AR15.1 (previously omitted) *Use case 16:* add R16.1, R16.2, R16.8 *Use case 17:* no change *Use case 18:* add R18.7, R18.8, change R18.10; add AR18.1 (previously omitted) *Use case 19:* delete former A19.1, add R19.8; change R19.7 *Use case 20:* no change *Use case 21*: add R21.9, R21.10, AR21.1 (previously omitted) *Use case 22:* no change	Carol Baque

Date	Description	Author
	Use case 23: delete all former requirements; add R23.1 – 23.5	
	Use cases 24 – 26: delete – replaced by use case 23	
	Use case 27: add AR27.1 (previously omitted)	
	Use case 28: add R28.2, R28.4, R28.5, change R28.3	
	Use case 29: add R29.4, R29.5	
	Use case 30: no change	
	Use case 31: no change	
	Use case 32: change R32.7	
	Use case 33: no change	
	Use case 34: change R34.5	
	Use case 35: added entire use case	
Mar. 2-7, 2006	Correct typos: *p.1, p.25*	
	pp.6-7: change description of 2.3 Scope and 2.5 Out of Scope	
	p.13: add description of 5.3 Priorities and Evaluation	
	Use case changes: change R1.10; change R4.14 - formerly AR4.1; correct name of use case 5; change R6.12 and R6.13; change AR10.1; change R11.13 - formerly AR11.1; change R16.8; change AR18.1; correct name of use case 19; add R20.7; add R21.13; delete AR22.1; change R29.10 - formerly AR29.1; add R30.10; change R32.7	
	p.42-46: change 2nd paragraph 6.2 External Interfaces; *p.43:* change 2nd paragraph 6.4 Performance; *p.44:* add last 3 items in 6.6 Maintainability and Support, correct reference in 6.7 Statewide Enterprise Architecture; *p.45:* add last item 6.8 Documentation; *p.46:* add 3rd item 6.9 Security	
Mar. 10, 2006	Revise after further User Group review:	Carol Baque
	Add R8.23 and R16.4	
Mar. 13, 2006	*p. 13:* correct count of use cases	Carol Baque

Appendix B. Interview List

Sierra Systems and agency project working team staff, Kreighan McAuliffe (ECY), Del Hontanosas (CTED), and Sharon Novak (OFM) attended most or all of the interviews with the following people.

Susan Dodson and Kathy Rosmond, OFM Roadmap staff
Susan Johnsen and Laura Nelson, OFM contracts staff
Kreighan McAuliffe, Jeff Nededly and Laura Lowe, ECY IS and Program staff and Project Manager
Debbie Hoxit, Lynne McGuire, Theo Yu and Mike Woods, OFM Budget Assistants and Priorities of Government staff
Bruce Gorsky, Mike Contris and Cliff Wilder, OFM AFRS staff
Daniel Steinborn, EPA Region 10
John Toohey, Cindy Trambitas, Cairn Steele, Sheila Lee-Johnson, Dana McInturff, John Hanson and Del Hontanosas, CTED Program staff, Financial and Fiscal staff, Enterprise Architect and Project Manager
Allen Schmidt, OFM Technical requirements
Bruce Crawford, IAC Associate Director of Monitoring, Measuring and Technology Division and GMAP lead
Scott Came, Chief Architect, DIS
Marijo Olson, Stephen Buxbaum and Kelley Snyder, CTED Program staff
David Foster, HUD Region X
Tim Sovold, Housing Finance Commission

Appendix C. Use Cases

Use cases are included in a separate document.